RECEIVED

JAN 0 2 2003

TECH CENTER 1600/2900



-97 1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,107B

DATE: 12/27/2002

TIME: 13:50:57

ENTERED

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\12272002\I743107B.raw

1/8/03

- 4 <110> APPLICANT: Hanson, Lars A.
- 5 Baltzer, Lars
- 6 Mattsby-Baltzer, Inger
- 7 Dolphin, Gunnar T.
- 9 <120> TITLE OF INVENTION: Peptides Based on the Sequence of Human Lactoferrin
- 10 and Their Use
- 12 <130> FILE REFERENCE: 003300-723
- 14 <140> CURRENT APPLICATION NUMBER: US 09/743,107B
- 15 <141> CURRENT FILING DATE: 2001-08-21
- 17 <150> PRIOR APPLICATION NUMBER: PCT/SE99/01230
- 18 <151> PRIOR FILING DATE: 2000-09-29
- 20 <150> PRIOR APPLICATION NUMBER: SE 9802441-7
- 21 <151> PRIOR FILING DATE: 1998-07-06
- 23 <150> PRIOR APPLICATION NUMBER: SE 9802562-0
- 24 <151> PRIOR FILING DATE: 1998-07-17
- 26 <150> PRIOR APPLICATION NUMBER: SE 9804614-7
- 27 <151> PRIOR FILING DATE: 1998-12-29
- 29 <160> NUMBER OF SEQ ID NOS: 102
- 31 <170> SOFTWARE: PatentIn version 2.1
- 33 <210> SEQ ID NO: 1
- 34 <211> LENGTH: 25
- 35 <212> TYPE: PRT
- 36 <213> ORGANISM: Artificial Sequence
- 38 <220> FEATURE:
- 39 <221> NAME/KEY: MOD_RES
- 40 <222> LOCATION: (1)
- 41 <223> OTHER INFORMATION: ACETYLATION
- 43 <220> FEATURE:
- 44 <221> NAME/KEY: PEPTIDE
- 45 <222> LOCATION: (1)
- 46 <223> OTHER INFORMATION: Amino acid 1 is Xaa wherein Xaa = Glu or no amino acid.
- 48 <220> FEATURE:
- 49 <221> NAME/KEY: PEPTIDE
- 50 <222> LOCATION: (2)
- 51 <223> OTHER INFORMATION: Amino acid 2 is Xaa wherein Xaa = Ala or no amino acid.
- 53 <220> FEATURE:
- 54 <221> NAME/KEY: PEPTIDE
- 55 <222> LOCATION: (5)
- 56 <223> OTHER INFORMATION: Amino acid 5 is Xaa wherein Xaa = Cys or Ala.
- 58 <220> FEATURE:
- 59 <221> NAME/KEY: PEPTIDE
- 60 <222> LOCATION: (7)
- 61 <223> OTHER INFORMATION: Amino acid 7 is Xaa wherein Xaa = Gln or Lys.



RAW SEQUENCE LISTING DATE: 12/27/2002 PATENT APPLICATION: US/09/743,107B TIME: 13:50:57

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\12272002\I743107B.raw

```
63 <220> FEATURE:
     64 <221> NAME/KEY: PEPTIDE
     65 <222> LOCATION: (11)
     66 <223> OTHER INFORMATION: Amino acid 11 is Xaa wherein Xaa = Asn or Asp.
     68 <220> FEATURE:
     69 <221> NAME/KEY: PEPTIDE
     70 <222> LOCATION: (17)..(25)
     71 <223> OTHER INFORMATION: Amino acids 17-25 are Xaa wherein Xaa = Gly, Pro, Pro, Val,
Ser,
     72
              Cys, Ile, Lys, Arg
     74 <220> FEATURE:
     75 <221> NAME/KEY: MOD_RES
     76 <222> LOCATION: (25)
     77 <223> OTHER INFORMATION: AMIDATION
     79 <220> FEATURE:
     80 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or artificial
     81
              origin, corresponding to modification of the sequence
     82
              consisting of aa 16-40 in human lactoferrin
     84 <400> SEQUENCE: 1
W--> 86 Xaa Xaa Thr Lys Xaa Phe Xaa Trp Gln Arg Xaa Met Arg Lys Val Arg
    87 1
                        5
W--> 89 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     90
                    20
                                        25
     92 <210> SEQ ID NO: 2
     93 <211> LENGTH: 25
     94 <212> TYPE: PRT
     95 <213> ORGANISM: Artificial Sequence
     97 <220> FEATURE:
     98 <221> NAME/KEY: MOD RES
    99 <222> LOCATION: (1)
     100 <223> OTHER INFORMATION: ACETYLATION
    102 <220> FEATURE:
    103 <221> NAME/KEY: MOD RES
    104 <222> LOCATION: (25)
    105 <223> OTHER INFORMATION: AMIDATION
    107 <220> FEATURE:
    108 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
    109
              artificial origin, corresponding to a modification
    110
              of the sequence consisting of amino acids 16-40 in
              human lactoferrin
    113 <400> SEQUENCE: 2
    114 Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg
    117 Gly Pro Pro Val Ser Cys Ile Lys Arg
                      20
    122 <210> SEQ ID NO: 3
    123 <211> LENGTH: 25
    124 <212> TYPE: PRT
    125 <213> ORGANISM: Artificial Sequence
    127 <220> FEATURE:
```



RAW SEQUENCE LISTING DATE: 12/27/2002 PATENT APPLICATION: US/09/743,107B TIME: 13:50:57

Input Set : A:\003300-723.ST25.txt
Output Set: N:\CRF4\12272002\I743107B.raw

```
128 <221> NAME/KEY: MOD RES
129 <222> LOCATION: (1)
130 <223> OTHER INFORMATION: ACETYLATION
132 <220> FEATURE:
133 <221> NAME/KEY: MOD RES
134 <222> LOCATION: (25)
135 <223> OTHER INFORMATION: AMIDATION
137 <220> FEATURE:
138 <221> NAME/KEY: DISULFID
139 <222> LOCATION: (5)..(22)
141 <220> FEATURE:
142 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
          artificial origin, corresponding to a modification
144
          of the sequence consisting of amino acids 16-40 in
          human lactoferrin
145
147 <400> SEQUENCE: 3
148 Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg
                                          10
151 Gly Pro Pro Val Ser Cys Ile Lys Arg
                 20
156 <210> SEQ ID NO: 4
157 <211> LENGTH: 23
158 <212> TYPE: PRT
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <221> NAME/KEY: MOD RES
163 <222> LOCATION: (1)
164 <223> OTHER INFORMATION: ACETYLATION
166 <220> FEATURE:
167 <221> NAME/KEY: MOD RES
168 <222> LOCATION: (23)..(23)
169 <223> OTHER INFORMATION: AMIDATION
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
173
          artificial origin, corresponding to a modification
174
          of the sequence consisting of amino acids 18-40 in
175
          human lactoferrin
177 <400> SEQUENCE: 4
178 Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro
179
                      5
                                          10
                                                              15
181 Pro Val Ser Cys Ile Lys Arg
182
                 20
186 <210> SEQ ID NO: 5
187 <211> LENGTH: 23
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <221> NAME/KEY: MOD RES
193 <222> LOCATION: (1)
```

DATE: 12/27/2002



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,107B TIME: 13:50:57

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\12272002\I743107B.raw

```
194 <223> OTHER INFORMATION: ACETYLATION
196 <220> FEATURE:
197 <221> NAME/KEY: MOD RES
198 <222> LOCATION: (23)
199 <223> OTHER INFORMATION: AMIDATION
201 <220> FEATURE:
202 <221> NAME/KEY: DISULFID
203 <222> LOCATION: (3)..(20)
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
          artificial origin, corresponding to a modification
208
          of the sequence consisting of amino acids 18-40 in
209
          human lactoferrin
211 <400> SEQUENCE: 5
212 Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro
213 1
                     5
215 Pro Val Ser Cys Ile Lys Arg
                 20
220 <210> SEQ ID NO: 6
221 <211> LENGTH: 14
222 <212> TYPE: PRT
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <221> NAME/KEY: MOD RES
227 <222> LOCATION: (1)
228 <223> OTHER INFORMATION: ACETYLATION
230 <220> FEATURE:
231 <221> NAME/KEY: MOD RES
232 <222> LOCATION: (14)
233 <223> OTHER INFORMATION: AMIDATION
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
237
          artificial origin, corresponding to a modification
238
          of the sequence consisting of amino acids 18-31 in
          human lactoferrin
239
241 <400> SEQUENCE: 6
242 Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg
243
     1
                      5
247 <210> SEQ ID NO: 7
248 <211> LENGTH: 14
249 <212> TYPE: PRT
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <221> NAME/KEY: MOD RES
254 <222> LOCATION: (1)
255 <223> OTHER INFORMATION: ACETYLATION
257 <220> FEATURE:
258 <221> NAME/KEY: MOD RES
259 <222> LOCATION: (14)
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/743,107B TIME: 13:50:57

DATE: 12/27/2002

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\12272002\1743107B.raw

```
260 <223> OTHER INFORMATION: AMIDATION
262 <220> FEATURE:
263 <221> NAME/KEY: BINDING
264 <222> LOCATION: (5)..(9)
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
          artificial origin, corresponding to a modification
268
269
          of the sequence consisting of aa 18-31 in human
270
          lactoferrin; a lactam is formed between aa 5 and 9
272 <400> SEQUENCE: 7
273 Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg
278 <210> SEQ ID NO: 8
279 <211> LENGTH: 20
280 <212> TYPE: PRT
281 <213> ORGANISM: Artificial Sequence
283 <220> FEATURE:
284 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
         natural or artificial origin consisting of the
285
          amino acids in positions 12-31 of the protein
286
         human lactoferrin
289 <400> SEOUENCE: 8
290 Val Ser Gln Pro Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met
                                         10
291
    1
293 Arg Lys Val Arg
294
298 <210> SEQ ID NO: 9
299 <211> LENGTH: 7
300 <212> TYPE: PRT
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
         natural or artificial origin consisting of the
306
          amino acids in positions 12-18 of the protein
307
          human lactoferrin
309 <400> SEQUENCE: 9
310 Val Ser Gln Pro Glu Ala Thr
311
     1
315 <210> SEQ ID NO: 10
316 <211> LENGTH: 7
317 <212> TYPE: PRT
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
         natural or artificial origin consisting of the
322
323
          amino acids in positions 13-19 of the protein
324
         human lactoferrin
326 <400> SEQUENCE: 10
327 Ser Gln Pro Glu Ala Thr Lys
```



RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/743,107B

DATE: 12/27/2002 TIME: 13:50:58

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\12272002\I743107B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,5,7,11,17,18,19,20,21,22,23,24,25 Seq#:43; Xaa Pos. 2,4,6,10 Seq#:87; Xaa Pos. 5 Seq#:88; Xaa Pos. 5 Seq#:89; Xaa Pos. 7 Seq#:90; Xaa Pos. 7 Seq#:99; Xaa Pos. 3,4,5,6,7,8,9